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 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  JAN 02   STN pricing information for 2008 now available
 NEWS  3  JAN 16   CAS patent coverage enhanced to include exemplified
                   prophetic substances
 NEWS  4  JAN 28   USPATFULL, USPAT2, and USPATOLD enhanced with new
                   custom IPC display formats
 NEWS  5  JAN 28   MARPAT searching enhanced
 NEWS  6  JAN 28   USGENE now provides USPTO sequence data within 3 days
                   of publication
 NEWS  7  JAN 28   TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS  8  JAN 28   MEDLINE and LMEDLINE reloaded with enhancements
 NEWS  9  FEB 08   STN Express, Version 8.3, now available
 NEWS 10  FEB 20   PCI now available as a replacement to DPCI
 NEWS 11  FEB 25   IFIREF reloaded with enhancements
 NEWS 12  FEB 25   IMSPRODUCT reloaded with enhancements
 NEWS 13  FEB 29   WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                   U.S. National Patent Classification
 NEWS 14  MAR 31   IFICDB, IFIPAT, and IFIUDB enhanced with new custom
                   IPC display formats
 NEWS 15  MAR 31   CAS REGISTRY enhanced with additional experimental
                   spectra
 NEWS 16  MAR 31   CA/CAplus and CASREACT patent number format for U.S.
                   applications updated
 NEWS 17  MAR 31   LPCI now available as a replacement to LDPCI
 NEWS 18  MAR 31   EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 19  APR 04   STN AnaVist, Version 1, to be discontinued
 NEWS 20  APR 15   WPIDS, WPINDEX, and WPIX enhanced with new
                   predefined hit display formats
 NEWS 21  APR 28   EMBASE Controlled Term thesaurus enhanced
 NEWS 22  APR 28   IMSRESEARCH reloaded with enhancements
 NEWS 23  MAY 30   INPAFAMDB now available on STN for patent family
                   searching
 NEWS 24  MAY 30   DGENE, PCTGEN, and USGENE enhanced with new homology
                   sequence search option
 NEWS 25  JUN 06   EPFULL enhanced with 260,000 English abstracts
 NEWS 26  JUN 06   KOREAPAT updated with 41,000 documents
 NEWS 27  JUN 13   USPATFULL and USPAT2 updated with 11-character
                   patent numbers for U.S. applications
 NEWS 28  JUN 19   CAS REGISTRY includes selected substances from
                   web-based collections
 NEWS 29  JUN 25   CA/CAplus and USPAT databases updated with IPC
                   reclassification data
 NEWS 30  JUN 30   AEROSPACE enhanced with more than 1 million U.S.
                   patent records
 NEWS 31  JUN 30   EMBASE, EMBAL, and LEMBASE updated with additional
                   options to display authors and affiliated
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                organizations
 NEWS 32  JUN 30  STN on the Web enhanced with new STN AnaVist
                  Assistant and BLAST plug-in
 NEWS 33  JUN 30  STN AnaVist enhanced with database content from EPFULL

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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FILE 'HOME' ENTERED AT 11:42:08 ON 10 JUL 2008

=> index bioscience medicine
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
       AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
       CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
       DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 11:42:28 ON 10 JUL 2008

72 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s (rnase? (2w) (iii or III or 3))
          1   FILE ADISINSIGHT
         63   FILE AGRICOLA
          5   FILE AQUASCI
         48   FILE BIOENG
       3627   FILE BIOSIS
         55   FILE BIOTECHABS
         55   FILE BIOTECHDS
        295   FILE BIOTECHNO
         76   FILE CABA
       1477   FILE CAPLUS
          2   FILE CEABA-VTB
          1   FILE CIN
         16   FILE CONFSCI
          2   FILE CROPU
          7   FILE DDFU
        454   FILE DGENE
         72   FILE DISSABS
         23   FILE DRUGU
  27 FILES SEARCHED...
          9   FILE EMBAL
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        543   FILE EMBASE
        394   FILE ESBIOBASE
          4   FILE FSTA
        977   FILE GENBANK
        124   FILE IFIPAT
        434   FILE LIFESCI
        736   FILE MEDLINE
          8   FILE NTIS
          1   FILE OCEAN
        170   FILE PASCAL
  47 FILES SEARCHED...
          1   FILE PHAR
          1   FILE PHARMAML
          2   FILE PHIN
         10   FILE PROMT
        605   FILE SCISEARCH
        267   FILE TOXCENTER
       1207   FILE USGENE
       1693   FILE USPATFULL
          2   FILE USPATOLD
        138   FILE USPAT2
         66   FILE WPIDS
          1   FILE WPIFV
  68 FILES SEARCHED...
         66   FILE WPINDEX
          5   FILE NLDB

  43 FILES HAVE ONE OR MORE ANSWERS,   72 FILES SEARCHED IN STNINDEX

L1    QUE (RNASE? (2W) (III OR III OR 3))

=> d rank
F1          3627   BIOSIS
F2          1693   USPATFULL
F3          1477   CAPLUS
F4          1207   USGENE
F5           977   GENBANK
F6           736   MEDLINE
F7           605   SCISEARCH
F8           543   EMBASE
F9           454   DGENE
F10          434   LIFESCI
F11          394   ESBIOBASE
F12          295   BIOTECHNO
F13          267   TOXCENTER
F14          170   PASCAL
F15          138   USPAT2
F16          124   IFIPAT
F17           76   CABA
F18           72   DISSABS
F19           66   WPIDS
F20           66   WPINDEX
F21           63   AGRICOLA
F22           55   BIOTECHABS
F23           55   BIOTECHDS
F24           48   BIOENG
F25           23   DRUGU
F26           16   CONFSCI
F27           10   PROMT
F28            9   EMBAL
F29            8   NTIS
F30            7   DDFU
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F31           5   AQUASCI
F32           5   NLDB
F33           4   FSTA
F34           2   CEABA-VTB
F35           2   CROPU
F36           2   PHIN
F37           2   USPATOLD
F38           1   ADISINSIGHT
F39           1   CIN
F40           1   OCEAN
F41           1   PHAR
F42           1   PHARMAML
F43           1   WPIFV

=> file f1-f4, f6-f8, f10-f15
COST IN U.S. DOLLARS                                    SINCE FILE       TOTAL
                                                             ENTRY     SESSION
FULL ESTIMATED COST                                           4.55        4.76

FILE 'BIOSIS' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'USPATFULL' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'CAPLUS' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'USGENE' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'MEDLINE' ENTERED AT 11:46:23 ON 10 JUL 2008

FILE 'SCISEARCH' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'EMBASE' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'LIFESCI' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'ESBIOBASE' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'BIOTECHNO' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'TOXCENTER' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'PASCAL' ENTERED AT 11:46:23 ON 10 JUL 2008
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FILE 'USPAT2' ENTERED AT 11:46:23 ON 10 JUL 2008
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CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> s (rnase? (2w) (iii or III or 3))
  11 FILES SEARCHED...
L2         11586 (RNASE? (2W) (III OR III OR 3))

=> s l2(s)(microb? or prokar? or bacte? or coli? or shewane? or psychro? or
(cold?(s)temperatu?) or (low?(s)temperatu?))
    9 FILES SEARCHED...
  12 FILES SEARCHED...
L3          2380 L2(S)(MICROB? OR PROKAR? OR BACTE? OR COLI? OR SHEWANE? OR PSYC
                HRO? OR (COLD?(S) TEMPERATU?) OR (LOW?(S) TEMPERATU?))

=> d kwic l3 1

L3   ANSWER 1 OF 2380  BIOSIS  COPYRIGHT (c) 2008 The Thomson Corporation  on
     STN
AB.  . . RNase III proteins have been grouped in three major classes
     according to their domain organization.  In this issue of Molecular
     Microbiology, Redko et al. identified a novel class of
     bacterial RNase III, named Mini-III,
     consisting only of the RNase III catalytic domain and
     functioning in the maturation of the 23S rRNA in Bacillus subtilis.  Its
     absence from proteobacteria reveals that.  . .


=> s l3(s)(shewan? or (cold(4w)temperatu?) or (low(4w)temperatu?) or psychro?)
  12 FILES SEARCHED...
L4            25 L3(S)(SHEWAN? OR (COLD(4W) TEMPERATU?) OR (LOW(4W) TEMPERATU?)
                 OR PSYCHRO?)

=> dup rem l4
DUPLICATE IS NOT AVAILABLE IN 'USGENE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L4
L5            10 DUP REM L4 (15 DUPLICATES REMOVED)

=> d ti l5 1-10

L5   ANSWER 1 OF 10  USPATFULL on STN
TI     Polypeptide Having Rnase III Activity

L5   ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2008 ACS on STN
TI   Shewanella protein with temperature sensitive RNase
     III activity for dsRNA cleavage useful in producing siRNA that
     mediate RNA interference

L5   ANSWER 3 OF 10  USPATFULL on STN
TI     Compositions and methods for the therapy and diagnosis of colon cancer

L5   ANSWER 4 OF 10  USPATFULL on STN
TI     Compositions and methods for the therapy and diagnosis of pancreatic
       cancer

L5   ANSWER 5 OF 10  USPATFULL on STN
TI     Compositions and methods for the therapy and diagnosis of colon cancer

L5   ANSWER 6 OF 10  USPATFULL on STN
TI     Compositions and methods for the therapy and diagnosis of ovarian cancer

L5   ANSWER 7 OF 10  LIFESCI    COPYRIGHT 2008 CSA on STN DUPLICATE 1
TI   Increased Expression of Escherichia coli Polynucleotide Phosphorylase at
```

Low Temperatures Is Linked to a Decrease in the Efficiency of Autocontrol

L5 ANSWER 8 OF 10 LIFESCI COPYRIGHT 2008 CSA on STN DUPLICATE 2
TI Cold-temperature induction of Escherichia coli polynucleotide phosphorylase occurs by reversal of its autoregulation

L5 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 3
TI The cryoprotective role of polyols in lichens: Effects on the redistribution of RNase in Evernia prunastri thallus during freezing.

L5 ANSWER 10 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 4
TI Lethal double-stranded RNA processing activity of ribonuclease III in the absence of SuhB protein of Escherichia coli.

=> d ibib abs l5 1-10

L5 ANSWER 1 OF 10 USPATFULL on STN
ACCESSION NUMBER: 2007:249888 USPATFULL
TITLE: Polypeptide Having Rnase III Activity
INVENTOR(S): Tomono, Jun, Okayama, JAPAN
Ueno, Harumi, Shiga, JAPAN
Sagawa, Hiroaki, Shiga, JAPAN
Kato, Ikunoshin, Shiga, JAPAN

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20070218524	A1	20070920	
APPLICATION INFO.:	US 2004-573381	A1	20040929	(10)
	WO 2004-JP14255		20040929	
			20060324	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2003-342260	20030930
	JP 2003-409638	20031208

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BROWDY AND NEIMARK, P.L.L.C., 624 NINTH STREET, NW, SUITE 300, WASHINGTON, DC, 20001-5303, US
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 1564
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A polypeptide having an RNase III activity with which the length of a dsRNA degradation product can be easily controlled depending on reaction conditions and, in preparing a dsRNA having a length allowing it to serve as an siRNA in RNA interference, a low-molecular weight product having little RNA interferring effect is scarcely formed; a method of degrading a dsRNA with the use of the above polypeptide; and a composition and a kit for the above method.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:300586 CAPLUS
DOCUMENT NUMBER: 142:351175
TITLE: Shewanella protein with temperature sensitive RNase III activity for dsRNA cleavage useful in producing siRNA that mediate

RNA interference

INVENTOR(S): Tomono, Jun; Ueno, Harumi; Sagawa, Hiroaki; Kato, Ikunoshin
PATENT ASSIGNEE(S): Takara Bio Inc., Japan
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005030948	A1	20050407	WO 2004-JP14255		20040929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
EP 1672060	A1	20060621	EP 2004-788321		20040929
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
CN 1860225	A	20061108	CN 2004-80028423		20040929
US 20070218524	A1	20070920	US 2006-573381		20060324
PRIORITY APPLN. INFO.:			JP 2003-342260	A	20030930
			JP 2003-409638	A	20031208
			WO 2004-JP14255	W	20040929

AB The present invention concerns methods and compns. involving protein containing RNase III activity to generate RNA capable of triggering RNA-mediated interference (RNAi) in a cell. A protein having an RNase III activity with which the length of a dsRNA degradation product can be easily controlled depending on reaction conditions and, a method of degrading a dsRNA with the use of the above protein; and a composition and a kit for the above method; are provided. The present invention further concerns methods using polypeptides with RNase III activity for generating RNA mols. that effect RNAi. Also claimed are fusion of this protein with nucleic acid-binding protein. A protein having an RNase III activity was cloned from Shewanella sp. Ac10. Compared to Escherichia coli RNase III, the Shewanella RNase III was much more temperature sensitive and the length of a dsRNA degradation product can be more easily controlled. Addition of Thermotoga maritima cold shock protein CspB as fusion facilitated the dsRNA degrading activity of the protein. Short dsRNA degradation products having little RNA interfering effect was scarcely produced in preparing a dsRNA; thus allowing it to serve as siRNA in RNA interference.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 10 USPATFULL on STN
ACCESSION NUMBER: 2003:237907 USPATFULL
TITLE: Compositions and methods for the therapy and diagnosis of colon cancer
INVENTOR(S): King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES

```
                       Secrist, Heather, Seattle, WA, UNITED STATES
                       Jiang, Yuqiu, Kent, WA, UNITED STATES
PATENT ASSIGNEE(S):    Corixa Corporation, Seattle, WA, UNITED STATES, 98104
                       (U.S. corporation)

                            NUMBER        KIND    DATE
                       ---------------- ------ --------
PATENT INFORMATION:    US 20030166064     A1   20030904
APPLICATION INFO.:     US 2002-99926      A1   20020314  (10)
RELATED APPLN. INFO.:  Continuation-in-part of Ser. No. US 2001-33528, filed
                       on 26 Dec 2001, PENDING Continuation-in-part of Ser.
                       No. US 2001-920300, filed on 31 Jul 2001, PENDING

                              NUMBER          DATE
                       ------------------ --------
PRIORITY INFORMATION:  US 2001-302051P    20010629 (60)
                       US 2001-279763P    20010328 (60)
                       US 2000-223283P    20000803 (60)
DOCUMENT TYPE:         Utility
FILE SEGMENT:          APPLICATION
LEGAL REPRESENTATIVE:  SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH
                       AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS:      17
EXEMPLARY CLAIM:       1
LINE COUNT:            8531
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB       Compositions and methods for the therapy and diagnosis of cancer,
         particularly colon cancer, are disclosed. Illustrative compositions
         comprise one or more colon tumor polypeptides, immunogenic portions
         thereof, polynucleotides that encode such polypeptides, antigen
         presenting cell that expresses such polypeptides, and T cells that are
         specific for cells expressing such polypeptides. The disclosed
         compositions are useful, for example, in the diagnosis, prevention
         and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5   ANSWER 4 OF 10  USPATFULL on STN
ACCESSION NUMBER:      2003:106233  USPATFULL
TITLE:                 Compositions and methods for the therapy and diagnosis
                       of pancreatic cancer
INVENTOR(S):           Benson, Darin R., Seattle, WA, UNITED STATES
                       Kalos, Michael D., Seattle, WA, UNITED STATES
                       Lodes, Michael J., Seattle, WA, UNITED STATES
                       Persing, David H., Redmond, WA, UNITED STATES
                       Hepler, William T., Seattle, WA, UNITED STATES
                       Jiang, Yuqiu, Kent, WA, UNITED STATES
PATENT ASSIGNEE(S):    Corixa Corporation, Seattle, WA, UNITED STATES, 98104
                       (U.S. corporation)

                            NUMBER        KIND    DATE
                       ---------------- ------ --------
PATENT INFORMATION:    US 20030073144     A1   20030417
APPLICATION INFO.:     US 2002-60036      A1   20020130  (10)

                              NUMBER          DATE
                       ------------------ --------
PRIORITY INFORMATION:  US 2001-333626P    20011127 (60)
                       US 2001-305484P    20010712 (60)
                       US 2001-265305P    20010130 (60)
                       US 2001-267568P    20010209 (60)
                       US 2001-313999P    20010820 (60)
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                    US 2001-291631P    20010516 (60)
                    US 2001-287112P    20010428 (60)
                    US 2001-278651P    20010321 (60)
                    US 2001-265682P    20010131 (60)
DOCUMENT TYPE:      Utility
FILE SEGMENT:       APPLICATION
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH
                    AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS:   17
EXEMPLARY CLAIM:    1
LINE COUNT:         14253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB      Compositions and methods for the therapy and diagnosis of cancer,
        particularly pancreatic cancer, are disclosed. Illustrative compositions
        comprise one or more pancreatic tumor polypeptides, immunogenic portions
        thereof, polynucleotides that encode such polypeptides, antigen
        presenting cell that expresses such polypeptides, and T cells that are
        specific for cells expressing such polypeptides. The disclosed
        compositions are useful, for example, in the diagnosis, prevention
        and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5   ANSWER 5 OF 10  USPATFULL on STN
ACCESSION NUMBER:   2002:272801  USPATFULL
TITLE:              Compositions and methods for the therapy and diagnosis
                    of colon cancer
INVENTOR(S):        Stolk, John A., Bothell, WA, UNITED STATES
                    Xu, Jiangchun, Bellevue, WA, UNITED STATES
                    Chenault, Ruth A., Seattle, WA, UNITED STATES
                    Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104
                    (U.S. corporation)

                        NUMBER        KIND    DATE
                    --------------- ------ --------
PATENT INFORMATION: US 20020150922    A1    20021017
APPLICATION INFO.:  US 2001-998598    A1    20011116  (9)

                        NUMBER          DATE
                    ----------------- --------
PRIORITY INFORMATION: US 2001-304037P  20010710 (60)
                    US 2001-279670P    20010328 (60)
                    US 2001-267011P    20010206 (60)
                    US 2000-252222P    20001120 (60)
DOCUMENT TYPE:      Utility
FILE SEGMENT:       APPLICATION
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH
                    AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS:   17
EXEMPLARY CLAIM:    1
LINE COUNT:         9233
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB      Compositions and methods for the therapy and diagnosis of cancer,
        particularly colon cancer, are disclosed. Illustrative compositions
        comprise one or more colon tumor polypeptides, immunogenic portions
        thereof, polynucleotides that encode such polypeptides, antigen
        presenting cell that expresses such polypeptides, and T cells that are
        specific for cells expressing such polypeptides. The disclosed
        compositions are useful, for example, in the diagnosis, prevention
        and/or treatment of diseases, particularly colon cancer.
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L5   ANSWER 6 OF 10  USPATFULL on STN
ACCESSION NUMBER:       2002:243051  USPATFULL
TITLE:                  Compositions and methods for the therapy and diagnosis
                        of ovarian cancer
INVENTOR(S):            Algate, Paul A., Issaquah, WA, UNITED STATES
                        Jones, Robert, Seattle, WA, UNITED STATES
                        Harlocker, Susan L., Seattle, WA, UNITED STATES
PATENT ASSIGNEE(S):     Corixa Corporation, Seattle, WA, UNITED STATES, 98104
                        (U.S. corporation)

                            NUMBER        KIND    DATE
                        --------------- ------ --------
PATENT INFORMATION:     US 20020132237    A1   20020919
APPLICATION INFO.:      US 2001-867701    A1   20010529  (9)

                              NUMBER          DATE
                        ----------------- --------
PRIORITY INFORMATION:   US 2000-207484P    20000526 (60)
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH
                        AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS:       11
EXEMPLARY CLAIM:        1
LINE COUNT:             25718
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L5   ANSWER 7 OF 10  LIFESCI    COPYRIGHT 2008 CSA on STN DUPLICATE 1
ACCESSION NUMBER:    2001:84460  LIFESCI
TITLE:               Increased Expression of Escherichia coli Polynucleotide
                     Phosphorylase at Low Temperatures Is Linked to a Decrease
                     in the Efficiency of Autocontrol
AUTHOR:              Mathy, N.; Jarrige, A.Q.; Robert-Le Meur, M.; Portier, C.*
CORPORATE SOURCE:    UPR9073 du CNRS, Institut de Biologie PhysicoChimique, 13
                     rue Pierre et Marie Curie, 75005 Paris, France; E-mail:
                     portier@ibpc.fr
SOURCE:              Journal of Bacteriology [J. Bacteriol.], (20010700) vol.
                     183, no. 13, pp. 3848-3854.
                     ISSN: 0021-9193.
DOCUMENT TYPE:       Journal
FILE SEGMENT:        N; J
LANGUAGE:            English
SUMMARY LANGUAGE:    English
```

AB Polynucleotide phosphorylase (PNPase) synthesis is translationally autocontrolled via an RNase III-dependent mechanism, which results in a tight correlation between protein level and messenger stability. In cells grown at 18 degree C, the amount of PNPase is twice that found in cells grown at 30 degree C. To investigate whether this effect was transcriptional or posttranscriptional, the expression of a set of pnp-lacZ transcriptional and translational fusions was analyzed in

cells grown at different temperatures. In the absence of PNPase, there was no increase in pnp-lacZ expression, indicating that the increase in pnp expression occurs at a posttranscriptional level. Other experiments clearly show that increased pnp expression at low temperature is only observed under conditions in which the autocontrol mechanism of PNPase is functional. At low temperature, the destabilizing effect of PNPase on its own mRNA is less efficient, leading to a decrease in repression and an increase in the expression level.

L5 ANSWER 8 OF 10 LIFESCI COPYRIGHT 2008 CSA on STN DUPLICATE 2
ACCESSION NUMBER: 2001:47231 LIFESCI
TITLE: Cold-temperature induction of Escherichia coli polynucleotide phosphorylase occurs by reversal of its autoregulation
AUTHOR: Beran, K.R.; Simons, W.R.
CORPORATE SOURCE: 1602 Molecular Science, Department of Microbiology, Immunology and Molecular Genetics, University of California, Los Angeles, CA 90095, USA.
SOURCE: Molecular Microbiology [Mol. Microbiol.], (20010100) vol. 39, no. 1, pp. 112-125.
ISSN: 0950-382X.
DOCUMENT TYPE: Journal
FILE SEGMENT: N; J
LANGUAGE: English
SUMMARY LANGUAGE: English
AB When Escherichia coli cells are shifted to low temperatures (e.g. 15 degree C), growth halts while the ' cold shock response' (CSR) genes are induced, after which growth resumes. One CSR gene, pnp, encodes polynucleotide phosphorylase (PNPase), a 3'-exoribonuclease and component of the RNA degradosome. At 37 degree C, ribonuclease III (RNase III, encoded by rnc) cleaves the pnp untranslated leader, whereupon PNPase represses its own translation by an unknown mechanism. Here, we show that PNPase cold-temperature induction involves several post-transcriptional events, all of which require the intact pnp mRNA leader. The bulk of induction results from reversal of autoregulation at a step subsequent to RNase III cleavage of the pnp leader. We also found that pnp translation occurs throughout cold -temperature adaptation, whereas lacZ super(+) translation was delayed. This difference is striking, as both mRNAs are greatly stabilized upon the shift to 15 degree C. However, unlike the lacZ super(+) mRNA, which remains stable during adaptation, pnp mRNA decay accelerates. Together with other evidence, these results suggest that mRNA is generally stabilized upon a shift to cold temperatures, but that a CSR mRNA-specific decay process is initiated during adaptation.

L5 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 3
ACCESSION NUMBER: 2000:503443 BIOSIS
DOCUMENT NUMBER: PREV200000503443
TITLE: The cryoprotective role of polyols in lichens: Effects on the redistribution of RNase in Evernia prunastri thallus during freezing.
AUTHOR(S): Fontaniella, Blanca; Vicente, Carlos [Reprint author]; Legaz, Maria-Estrella
CORPORATE SOURCE: Department of Plant Physiology, Lichen Team, Faculty of Biology, Complutense University, 28040, Madrid, Spain
SOURCE: Plant Physiology and Biochemistry (Paris), (July-August, 2000) Vol. 38, No. 7-8, pp. 621-627. print.
CODEN: PPBIEX. ISSN: 0981-9428.
DOCUMENT TYPE: Article

LANGUAGE: English
ENTRY DATE: Entered STN: 22 Nov 2000
Last Updated on STN: 11 Jan 2002

AB The effect of low temperatures on the distribution of RNase (EC 3.1.26.1) in the lichen Evernia prunastri (L.) Ach. has been studied in laboratory conditions. Freezing of lichen thalli produces solubilization of part of the particulate enzyme from the cell wall of both mycobiont and phycobiont to the corresponding cytoplasm. A supply of exogenous ribitol (naturally produced by the algal partner) totally prevents the solubilization of the enzyme whereas mannitol (naturally produced by the fungal partner) impedes the enzyme solubilization to a minor extent. RNase is preferably located in the phycobiont cells in terms of specific activity. Ribitol also impedes the solubilization of algal enzyme whereas mannitol strongly promotes the loss of RNase from algal cell wall to the soluble fraction. Solubilization of fungal enzyme is enhanced by both polyols, with a preference for ribitol.

L5 ANSWER 10 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 4

ACCESSION NUMBER: 1995:401958 BIOSIS
DOCUMENT NUMBER: PREV199598416258
TITLE: Lethal double-stranded RNA processing activity of ribonuclease III in the absence of SuhB protein of Escherichia coli.
AUTHOR(S): Inada, T.; Nakamura, Y. [Reprint author]
CORPORATE SOURCE: Dep. Tumor Biol., Inst. Med. Sci., University Tokyo, 4-6-1 Shirokanedai, Minato-ku, Tokyo 108, Japan
SOURCE: Biochimie (Paris), (1995) Vol. 77, No. 4, pp. 294-302.
CODEN: BICMBE. ISSN: 0300-9084.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Sep 1995
Last Updated on STN: 10 Oct 1995

AB The suhB gene of Escherichia coli has been defined by its mutant allele that suppresses other mutants in secY, rpoH, dnaB, and era. The suhB mutant by itself is cold sensitive, and is shown to have defects in protein synthesis. Starting with the suhB cold-sensitive mutant, cold-resistant suppressors were isolated. These suppressors mapped to the gene rnc encoding RNase III (a double-strand RNA-processing enzyme), and restored normal protein synthesis to the suhB mutants. Two known rnc mutations, rnc70 or rnc105, both defective in RNA cleavage activity, similarly restored growth of suhB. These rnc mutations did not alter the level of suhB expression. These results suggest that wild-type RNase III exerts a lethal effect on E. coli upon depletion of SuhB at low temperatures. One explanation is to assume that the double-strand RNA-processing activity of RNase III itself is potentially lethal to E. coli and the normal function of SuhB modulates the lethal action of RNase III.

=> d kwic l5 1-10

L5 ANSWER 1 OF 10 USPATFULL on STN

SUMM For easy control of reaction conditions, the present inventors have intensively examined a polypeptide having an RNase III activity that can be heat-inactivated at a temperature lower than an RNase III derived from a mesophile, and with which mild degradation conditions can be set utilizing the thermosensitivity. As a result, the present inventors have found that a polypeptide having an RNase III activity derived from a cold-adapted microorganism has an RNase III activity with which a length of a dsRNA

degradation product can be readily controlled by reaction conditions, and which does not tend to produce a small molecule whose RNA interference effect is low upon preparation of an siRNA of a length that is capable of functioning in RNA interference as an siRNA. The present inventors have attempted to clone a polynucleotide encoding a polypeptide having an RNase III activity from a cold-adapted microorganism Shewanella sp. Ac10 which can grow at 4° C., successfully expressed the polypeptide having an RNase III activity of interest, and found that the activity of the RNase III is preferable for preparation of an siRNA. Thus, the present invention has been completed.

DETD There is no specific limitation concerning a vector used for producing the polypeptide having an RNase III activity of the present invention. Any commercially available vector or expression system may be used. In particular, the pET system. . . . intended to limit the present invention. In addition, a vector having a promoter that is capable of functioning at a low temperature can be preferably used. Examples thereof include the pCold-series vectors as described in WO 99/27117.

DETD . . . of the respective ORFs to enzymes was obtained by the BLAST. searches. A gene of interest from the cold-adapted microorganism Shewanella sp. Ac10 that was presumed to encode an RNase III and has the nucleotide sequence of SEQ ID NO:1 was obtained from them.

DETD Thus, it was shown that the polypeptide having an RNase III activity from the cold-adapted microorganism is more temperature-sensitive and can be inactivated at a lower temperature than the RNase III from Escherichia coli.

DETD . . . in Table 1.

TABLE 1

Transferred sample	Average fluorescence intensity
Control (no addition)	8.09
Control (vector alone)	1331.44
E. coli RNase III (complete degradation)	1035.36
E. coli RNase III (partial degradation)	637.30
Shewanella sp. Ac10 RNase III	295.14

DETD . . . (vector alone) as shown in Table 1 represents more RNA interference. It was confirmed that the degradation product with the RNase III from Shewanella sp. Ac10 exhibited an RNA interference effect stronger than the complete or partial degradation product with the RNase III from Escherichia coli.

DETD The RNA interference effect of a dsRNA degradation product prepared using the RNase III from the cold-adapted microorganism of the present invention was examined. A commercially available E. coli RNase III (Epicentre) was used as a control. A dsRNA degradation product was prepared basically according to the method as described in. . . . μg of rsGFP-dsRNA prepared in Example 4-(1) was cleaved at 30° C. for one hour using 2 μl of the RNase III from Shewanella as described in Example 3-(2). In case of the commercially available E. coli RNase III

(1 U/μl), 10 μg of the dsRNA was cleaved at 37° C. for 10 minutes (partial degradation) or 60 minutes (complete degradation) using 2 μl of the RNase III. The cleavage products were purified using RNA Purification Column 1, 2 (Gene Therapy Systems) and used for assessments in RNA. . .

DETD . . . Table 2.

TABLE 2

Transferred sample	Average fluorescence intensity (relative value)
Control (no addition)	0
Control (vector alone)	100
Shewanella sp. AC10 RNase III	49.19
Commercially available E. coli RNase III (partial degradation)	77.62
Commercially available E. coli RNase III (complete degradation)	93.81

DETD . . . as shown in Table 2 represents more RNA interference. It was confirmed that the dsRNA degradation product obtained using the RNase III from Shewanella sp. AC10 exhibited an RNAi effect like the one obtained using the commercially available E. coli RNase III, and the exhibited RNA interference effect was stronger than that of the one obtained using the commercially available E. coli RNase III.

DETD . . . 3.

TABLE 3

Transferred sample	Amount of rsGFP mRNA (relative value)
Control (no addition)	0
Control (vector alone)	100
Shewanella sp. AC10 RNase III	36.85
Commercially available E. coli RNase III (partial degradation)	51.36
Commercially available E. coli RNase III (complete degradation)	72.30

DETD . . . as shown in Table 3 represents more RNA interference. It was confirmed that the dsRNA degradation product obtained using the RNase III from Shewanella sp. AC10 exhibited an effect like the one obtained using the commercially available E. coli RNase III, and the exhibited RNA interference effect was stronger than that of the one obtained using the commercially available E. coli RNase III.

DETD . . . 4-(1). Specifically, 10 μg of the dsRNA was cleaved at 30° C. for one hour using 2 μl of the Shewanella RNase III in Example 3-(2), or at 37° C. for 10 minutes (partial degradation) or 60 minutes (complete degradation) using

2 μl of the commercially available E. coli RNase III (1 U/μl) The cleavage products were purified using RNA Purification Column 1, 2 (Gene Therapy Systems) and used for assessments in RNA interference as follows. The product of cleavage at 37° C. for 10 minutes with the E. coli RNase III was subjected to polyacrylamide gel electrophoresis, and a band corresponding to a length of about 21 bp was excised. TE. . . .

DETD . . . 4.

TABLE 4

Transferred siRNA sample	GL3 expression level (relative value)
Control (no addition)	0
Control (vector alone)	100
Shewanella sp. AC10 RNase III 500 ng	10.71
Shewanella sp. AC10 RNase III 166.7 ng	11.33
Shewanella sp. AC10 RNase III 55.6 ng	19.06
Commercially available E. coli RNase III (partial degradation) 500 ng	10.13
Commercially available E. coli RNase III (partial degradation) 166.7 ng	13.43
Commercially available E. coli RNase III (partial degradation) 55.6 ng	29.83
Commercially available E. coli RNase III (complete degradation) 500 ng	19.60
Commercially available E. coli RNase III (complete degradation) 166.7 ng	44.84
Commercially available E. coli RNase III (complete degradation) 55.6 ng	72.56
Commercially available E. coli RNase III (gel-recovery) 500 ng	8.73
Commercially available E. coli RNase III (gel-recovery) 166.7 ng	16.58
Commercially available E. coli RNase III (gel-recovery) 55.6 ng	39.69

DETD . . . as shown in Table 4 represents more RNA interference. It was confirmed that the dsRNA degradation product obtained using the Shewanella RNase III exhibited an RNA interference effect like the one obtained using the commercially available E. coil RNase III, and the exhibited RNA interference effect was stronger than that of the one obtained using the commercially available E. coli RNase III. It was further shown that the effect was superior to that of the gel-recovered cleavage product.

DETD Comparison between Shewanella RNase III and Dicer from Human

DETD The RNA interference effect of a dsRNA prepared using the Shewanella RNase III was compared with the RNA interference effect of a dsRNA prepared using a Dicer from human. The assessment system using. . .
DETD . . . 5.
TABLE 5

Transferred siRNA sample	GL3 mRNA amount (relative value)
Control (no addition)	0
Control (vector alone)	100
Shewanella RNase III 500 ng	9.42
Shewanella RNase III 166.7 ng	10.50
Shewanella RNase III 55.6 ng	21.22
Shewanella RNase III 18.5 ng	42.33
Commercially available Dicer from human 166.7 ng	8.21
Commercially available Dicer from human 55.6 ng	9.73
Commercially. . .	

DETD . . . (vector alone) as shown in Table 5 represents more RNA interference. It was confirmed that the siRNA obtained using the Shewanella RNase III exhibited an RNA interference effect equivalent to the one obtained using the commercially available Dicer.
DETD SEQUENCE CHARACTERISTICS:
SEQ ID NO: 3
LENGTH: 37
TYPE: DNA
ORGANISM: Artificial
FEATURE:
OTHER INFORMATION: Synthetic primer 2 to amplify a gene encoding Shewanella sp.AC10 RNaseIII
SEQUENCE: 3
ggagaggtct ggatccttat ttattcagta gctcctt 37

L5 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
TI Shewanella protein with temperature sensitive RNase III activity for dsRNA cleavage useful in producing siRNA that mediate RNA interference
AB . . . RNA mols. that effect RNAi. Also claimed are fusion of this protein with nucleic acid-binding protein. A protein having an RNase III activity was cloned from Shewanella sp. Ac10. Compared to Escherichia coli RNase III, the Shewanella RNase III was much more temperature sensitive and the length of a dsRNA degradation product can be more easily controlled. Addition of. . .
ST Shewanella protein temp sensitive RNase III dsRNA cleavage; siRNA RNA interference Shewanella RNase III
IT Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(CspB (cold-shock protein B), fusion protein with; Shewanella

protein with temperature sensitive RNase III activity for
dsRNA cleavage useful in producing siRNA that mediate RNA interference)

IT DNA sequences
Protein sequences
Shewanella
Temperature effects, biological
(Shewanella protein with temperature sensitive RNase
III activity for dsRNA cleavage useful in producing siRNA that
mediate RNA interference)

IT Double stranded RNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Shewanella protein with temperature sensitive RNase
III activity for dsRNA cleavage useful in producing siRNA that
mediate RNA interference)

IT Fusion proteins (chimeric proteins)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(Shewanella protein with temperature sensitive RNase
III activity for dsRNA cleavage useful in producing siRNA that
mediate RNA interference)

IT Thermotoga maritima
(cold shock protein CspB, fusion protein with; Shewanella
protein with temperature sensitive RNase III activity for
dsRNA cleavage useful in producing siRNA that mediate RNA interference)

IT Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(cold-shock, fusion protein with; Shewanella protein with
temperature sensitive RNase III activity for dsRNA
cleavage useful in producing siRNA that mediate RNA interference)

IT Post-transcriptional processing
(interference; Shewanella protein with temperature sensitive
RNase III activity for dsRNA cleavage useful in
producing siRNA that mediate RNA interference)

IT Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(nucleic acid-binding, fusion protein with; Shewanella
protein with temperature sensitive RNase III activity for
dsRNA cleavage useful in producing siRNA that mediate RNA interference)

IT Double stranded RNA
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP
(Preparation)
(small interfering; Shewanella protein with temperature sensitive
RNase III activity for dsRNA cleavage useful in
producing siRNA that mediate RNA interference)

IT 9073-62-5P, E.C. 3.1.26.3
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
CAT (Catalyst use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(E.C. 3.1.26.3; Shewanella protein with temperature sensitive
RNase III activity for dsRNA cleavage useful in
producing siRNA that mediate RNA interference)

IT 848885-26-7, RNase III (Shewanella sp.
strain Ac10)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(amino acid sequence; Shewanella protein with temperature sensitive
RNase III activity for dsRNA cleavage useful in
producing siRNA that mediate RNA interference)

IT 848885-25-6
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)
(nucleotide sequence; Shewanella protein with temperature sensitive RNase III activity for dsRNA cleavage useful in producing siRNA that mediate RNA interference)

IT 848887-02-5 848887-03-6 848887-05-8 848887-06-9 848887-07-0 848887-08-1 848887-09-2 848887-10-5 848887-12-7 848887-13-8 848887-14-9 848887-15-0 848887-16-1
RL: PRP (Properties)
(unclaimed nucleotide sequence; shewanella protein with temperature sensitive RNase III activity for dsRNA cleavage useful in producing siRNA that mediate RNA interference)

IT 848887-04-7 848887-11-6
RL: PRP (Properties)
(unclaimed protein sequence; shewanella protein with temperature sensitive RNase III activity for dsRNA cleavage useful in producing siRNA that mediate RNA interference)

L5 ANSWER 3 OF 10 USPATFULL on STN

SUMM [2042] For example, certain amino acids may be substituted for other amino acids in a protein structure without appreciable loss of interactive binding capacity with structures such as, for example, antigen-binding regions of antibodies or binding sites on substrate molecules. Since it is the interactive capacity and nature of a protein that defines that protein's biological functional activity, certain amino acid sequence substitutions can be made in a protein sequence, and, of course, its underlying DNA coding sequence, and nevertheless obtain a protein with like properties. It is thus contemplated that various changes may be made in the peptide sequences of the disclosed compositions, or corresponding DNA sequences which encode said peptides without appreciable loss of their biological utility or activity.

TABLE 1

Amino Acids			Codons
Alanine	Ala	A	GCA GCC GCG GCU
Cysteine	Cys	C	UGC UGU
Aspartic acid	Asp	D	GAC GAU
Glutamic acid	Glu	E	GAA GAG
Phenylalanine	Phe	F	UUC UUU
Glycine	Gly	G	GGA GGC GGG GGU
Histidine	His	H	CAC CAU
Isoleucine	Ile	I	AUA AUC AUU
Lysine	Lys	K	AAA AAG
Leucine	Leu	L	UUA UUG CUA CUC CUG CUU

Methionine	Met	M	AUG
Asparagine	Asn	N	AAC AAU
Proilne	Pro	P	CCA CCC CCG CCU
Glutamine	Gln	Q	CAA CAG
Arginine	Arg	R	AGA AGG CGA CGC CGG CGU
Serine	Ser	S	AGC AGU UCA UCC UCG UCU
Threonine	Thr	T	ACA ACC ACG ACU
Valine	Val	V	GUA GUC GUG GUU
Tryptophan	Trp	W	UGG
Tyrosine	Tyr	Y	UAC UAU

L5 ANSWER 4 OF 10 USPATFULL on STN
SUMM [2043] SEQ ID NO:2003 is the determined cDNA sequence of clone 61496359

L5 ANSWER 5 OF 10 USPATFULL on STN
SUMM [2044] SEQ ID NO:1997 is the determined cDNA sequence for clone 62227174 R0394:B12

L5 ANSWER 6 OF 10 USPATFULL on STN
SUMM [2043] SEQ ID NO: 2004 represents the cDNA sequence for clone AA165409.

L5 ANSWER 7 OF 10 LIFESCI DUPLICATE 1
AB Polynucleotide phosphorylase (PNPase) synthesis is translationally autocontrolled via an RNase III-dependent mechanism, which results in a tight correlation between protein level and messenger stability. In cells grown at 18 degree C,. . . or posttranscriptional, the expression of a set of pnp-lacZ transcriptional and translational fusions was analyzed in cells grown at different temperatures. In the absence of PNPase, there was no increase in pnp-lacZ expression, indicating that the increase in pnp expression occurs at a posttranscriptional level. Other experiments clearly show that increased pnp expression at low temperature is only observed under conditions in which the autocontrol mechanism of PNPase is functional. At low temperature, the destabilizing effect of PNPase on its own mRNA is less efficient, leading to a decrease in repression and an. . .

L5 ANSWER 8 OF 10 LIFESCI DUPLICATE 2
AB When Escherichia coli cells are shifted to low temperatures (e.g. 15 degree C), growth halts while the ' cold shock response' (CSR) genes are induced, after which growth resumes. One CSR gene, pnp, encodes polynucleotide phosphorylase (PNPase), a 3'-exoribonuclease and component of the RNA degradosome. At 37 degree C, ribonuclease III (RNase III, encoded by rnc) cleaves the pnp untranslated leader, whereupon PNPase represses its own translation by an unknown mechanism. Here, we show that PNPase cold-temperature induction involves several post-transcriptional events, all of which require the intact pnp mRNA leader. The bulk of induction results from reversal of autoregulation at a step subsequent to RNase III cleavage of the pnp leader. We also found that pnp translation occurs throughout cold

-temperature adaptation, whereas lacZ super(+) translation was delayed. This difference is striking, as both mRNAs are greatly stabilized upon the shift. . . pnp mRNA decay accelerates. Together with other evidence, these results suggest that mRNA is generally stabilized upon a shift to cold temperatures, but that a CSR mRNA-specific decay process is initiated during adaptation.

L5 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 3

AB The effect of low temperatures on the distribution of RNase (EC 3.1.26.1) in the lichen Evernia prunastri (L.) Ach. has been studied in laboratory conditions. Freezing of lichen thalli produces solubilization of. . .

L5 ANSWER 10 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 4

AB. . . restored growth of suhB. These rnc mutations did not alter the level of suhB expression. These results suggest that wild-type RNase III exerts a lethal effect on E. coli upon depletion of SuhB at low temperatures. One explanation is to assume that the double-strand RNA-processing activity of RNase III itself is potentially lethal to E. coli. . .

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(FILE 'HOME' ENTERED AT 11:42:08 ON 10 JUL 2008)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 11:42:28 ON 10 JUL 2008

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5	FILE AQUASCI
48	FILE BIOENG
3627	FILE BIOSIS
55	FILE BIOTECHABS
55	FILE BIOTECHDS
295	FILE BIOTECHNO
76	FILE CABA
1477	FILE CAPLUS
2	FILE CEABA-VTB
1	FILE CIN
16	FILE CONFSCI
2	FILE CROPU
7	FILE DDFU
454	FILE DGENE
72	FILE DISSABS
23	FILE DRUGU
9	FILE EMBAL
543	FILE EMBASE
394	FILE ESBIOBASE
4	FILE FSTA
977	FILE GENBANK
124	FILE IFIPAT
434	FILE LIFESCI
736	FILE MEDLINE
8	FILE NTIS
1	FILE OCEAN

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              1   FILE PHARMAML
              2   FILE PHIN
             10   FILE PROMT
            605   FILE SCISEARCH
            267   FILE TOXCENTER
           1207   FILE USGENE
           1693   FILE USPATFULL
              2   FILE USPATOLD
            138   FILE USPAT2
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                 D RANK

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                 D IBIB ABS L5 1-10
                 D KWIC L5 1-10


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     CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
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     FILE LAST UPDATED: 10 Jul 2008 (20080710/ED)
     HIGHEST GRANTED PATENT NUMBER: US7398557
     HIGHEST APPLICATION PUBLICATION NUMBER: US20080168588
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